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Structure of Preferred embodiments of the invention

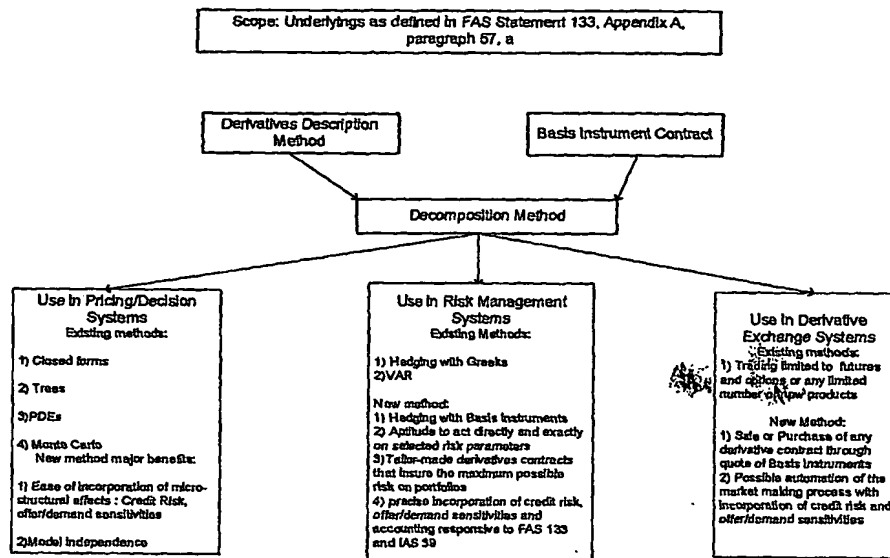


Figure 1: Structure of preferred embodiments for the invention

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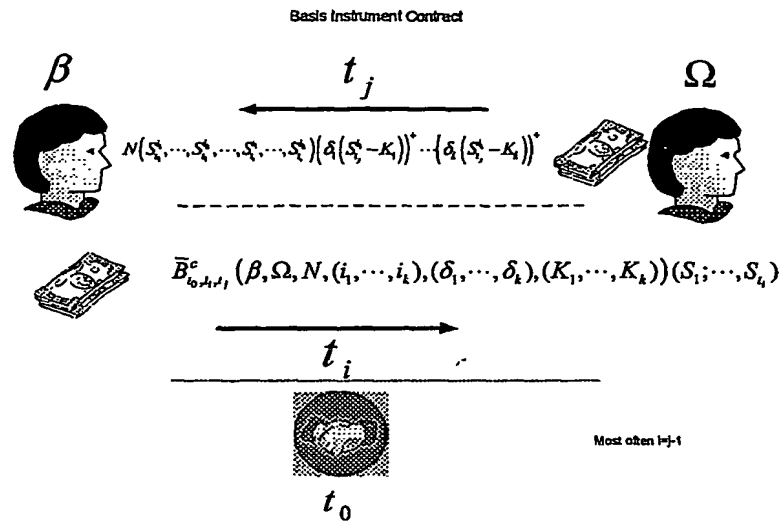


Figure 2: Definition of Basis Instruments Contracts

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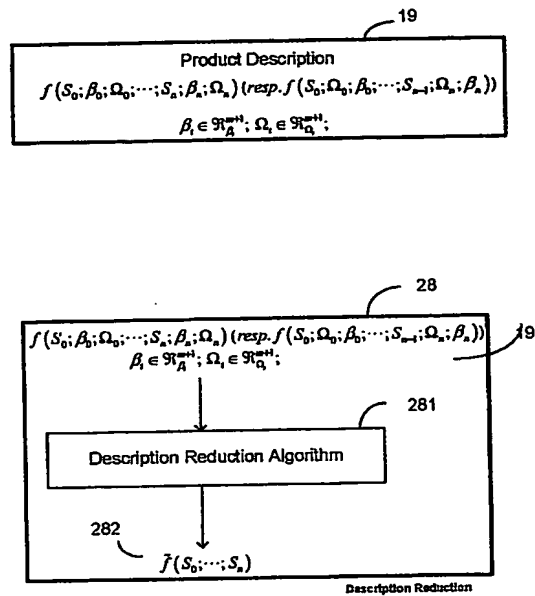


Figure 3: Derivatives Reduction

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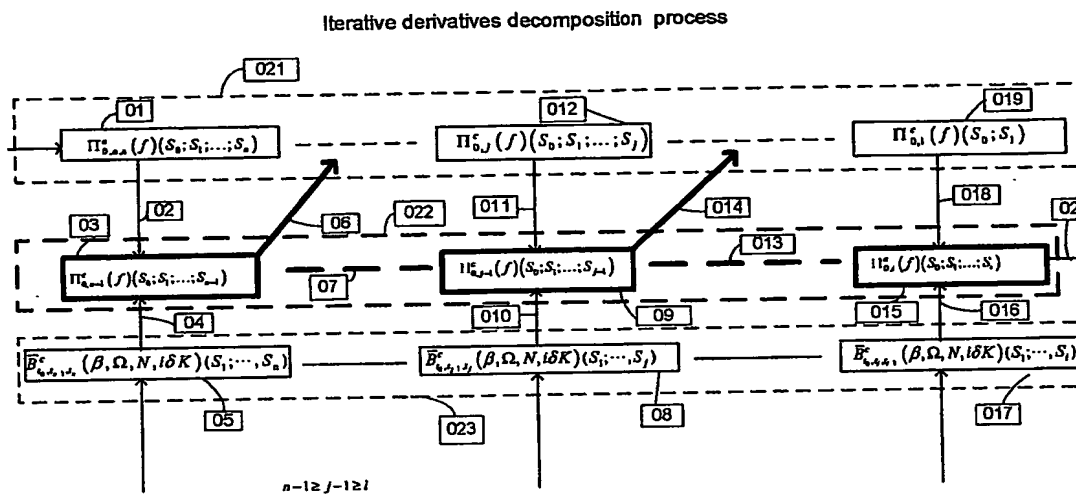


Figure 4: Iterative Derivatives Decomposition Process

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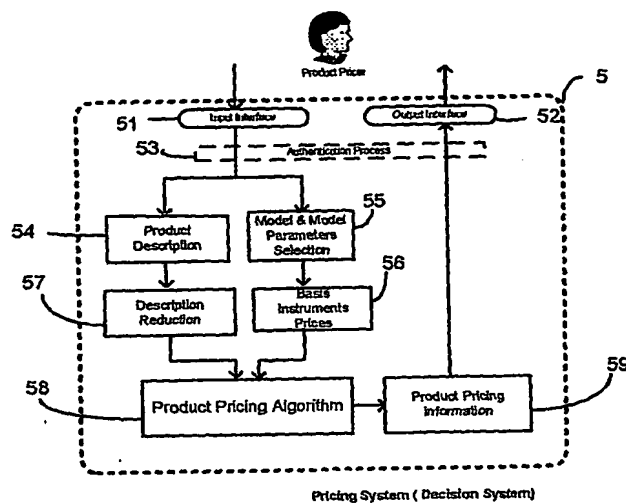


Figure 5: Pricing system

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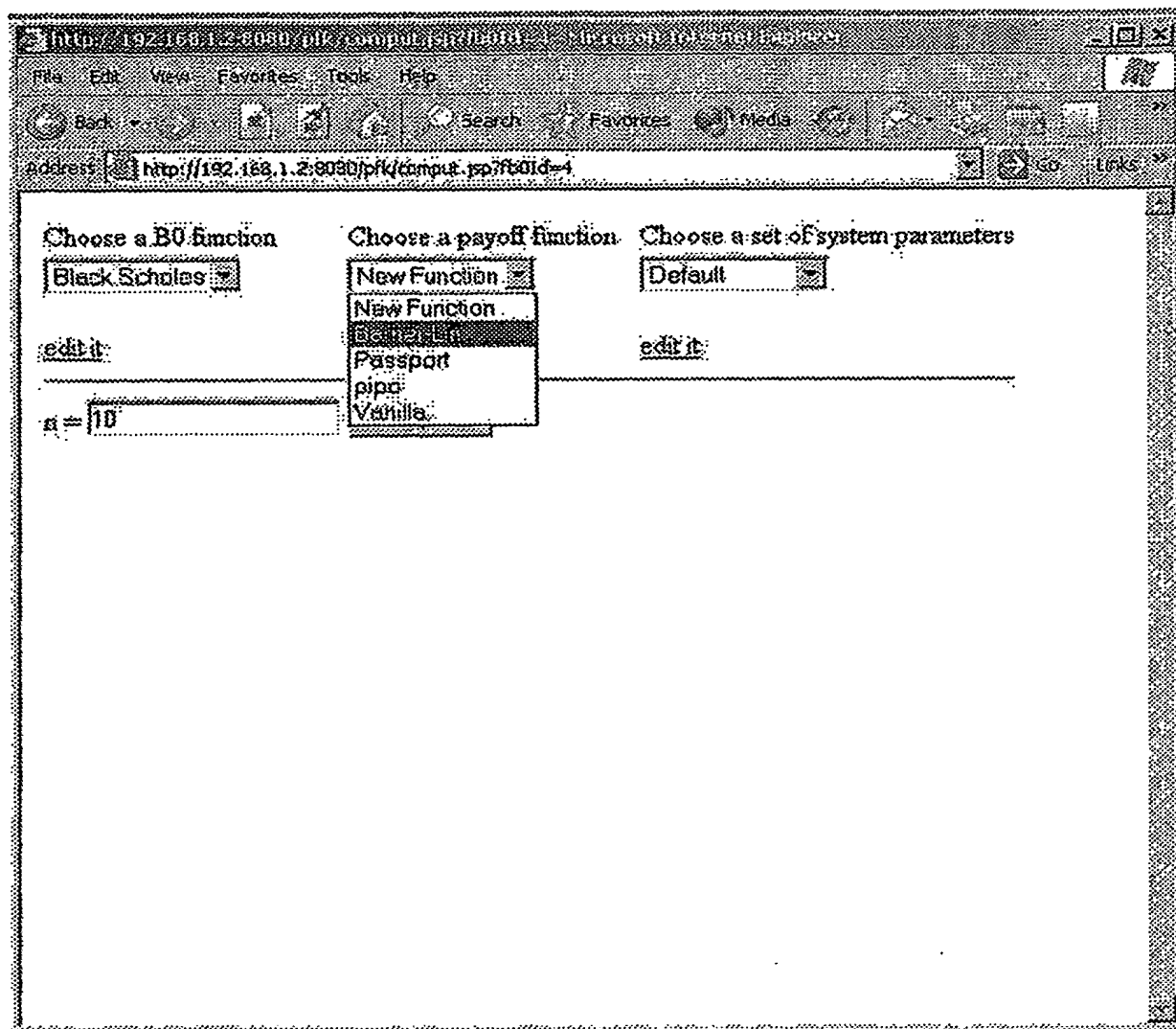


Figure 6: Web Interface : Main screen

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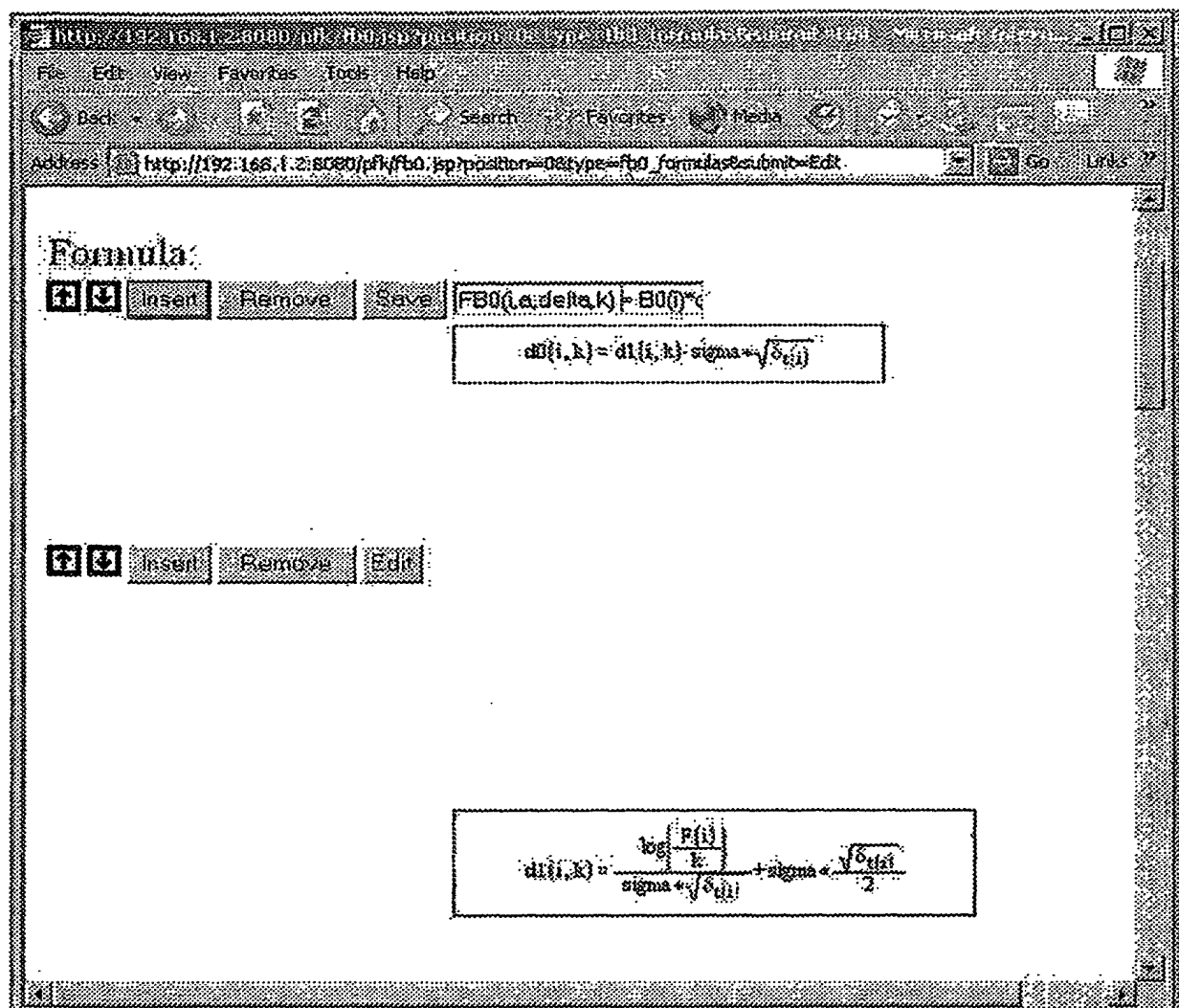


Figure 7: Web Interface : Basis Instrument Input

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Variables:

Number of Variables: 2

[EditNhVars](#)

Variable: 0 Name: S
 Formula: S()
 Low bound: LS()
 High bound: HS()

Variable: 1 Name: p [Edit](#)

 Formula: p [Save](#)

 (i) = $p(i-1) + \text{Beta} * (S(i) - S(i-1))$

 Low bound: $Lp(i-1) + \text{Min}(LS(i) - HS(i-1), -HS(i) + LS(i-1))$ [Edit](#)

 High bound: $Hp(i-1) + \text{Max}(HS(i) - LS(i-1), -LS(i) + HS(i-1))$ [Edit](#)

 Initial Value: 0.0 [Edit](#)

Figure 8: Web Interface : Payoff Function Input

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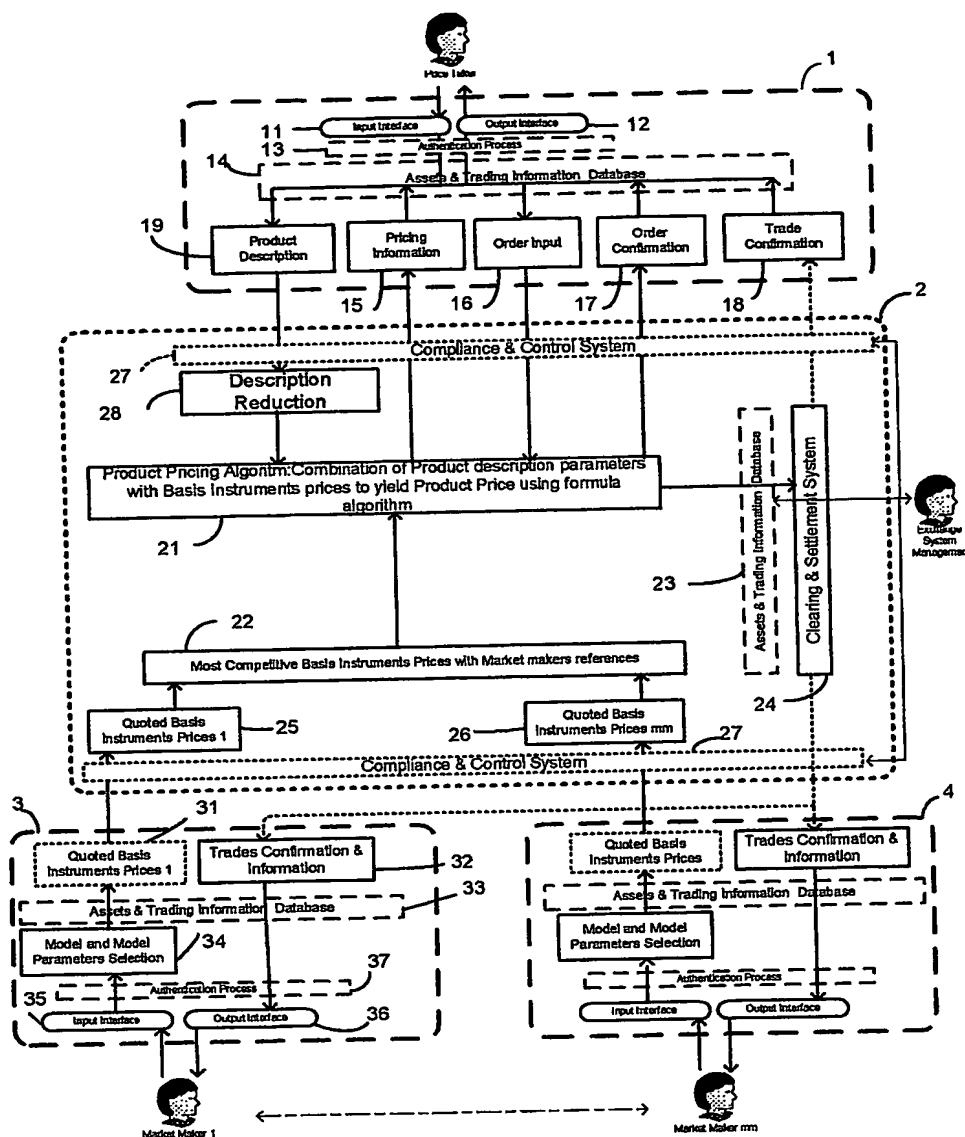


Figure 9: Exchange trading system

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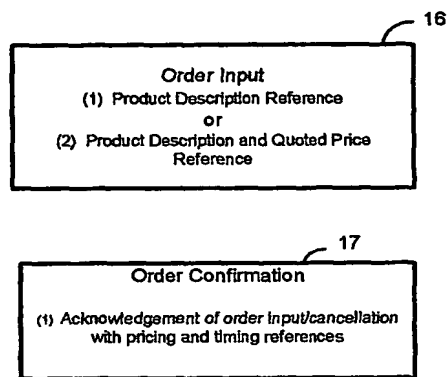


Figure 10: Exchange Order Input & Confirmation

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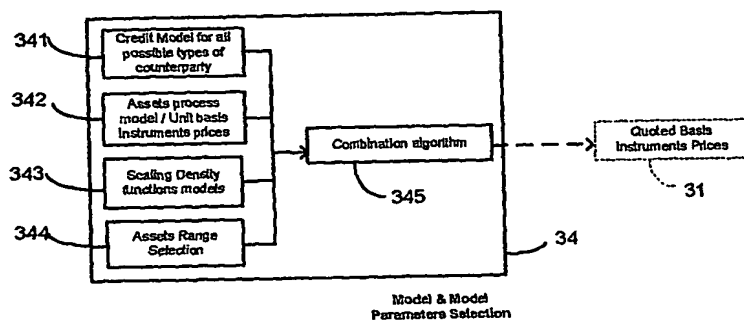


Figure 11: Model & Parameter selection

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Basis instruments price selection process in an exchange framework
 Illustration of Basis instruments syndication to market makers to most efficiently reduce
 derivatives prices quoted to price takers

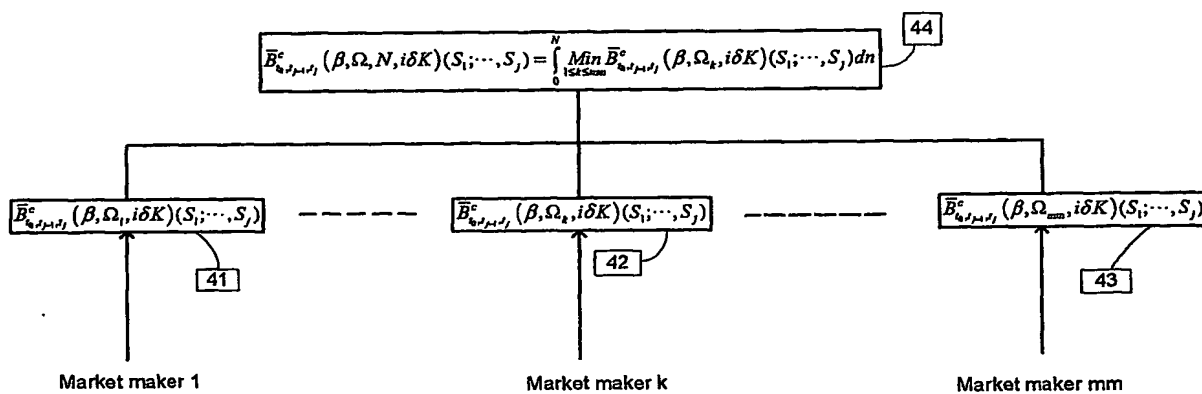


Figure 12: Basis instruments price selection process

Derivatives Pricing Approximation Process by selecting block units and recombining while keeping a cap on approximation error

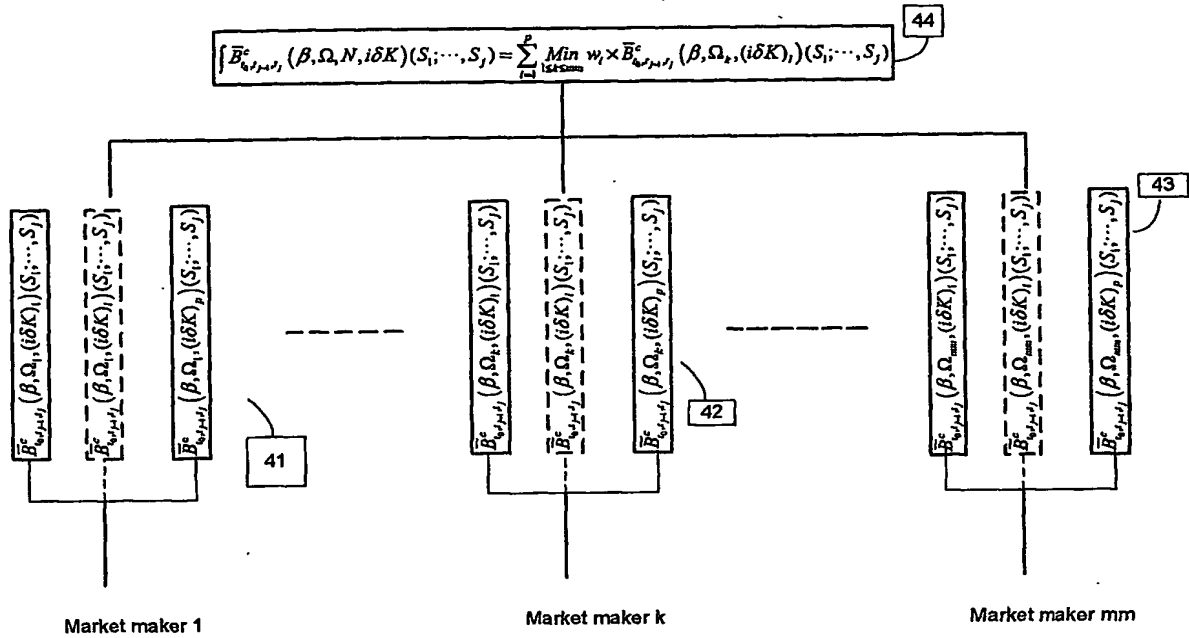


Figure 13: Derivatives Pricing Approximation Process by selecting block units

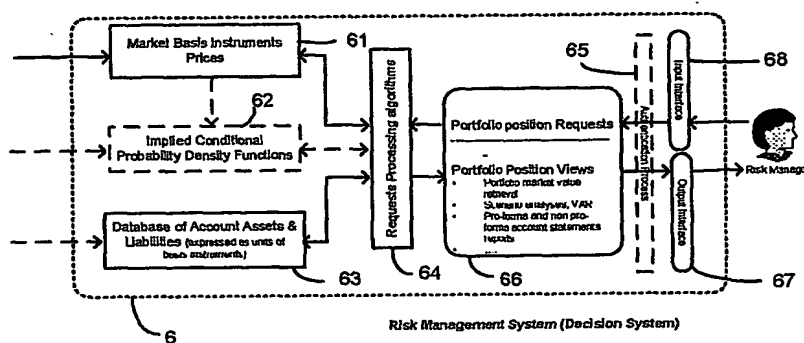


Figure 14: Risk Management system

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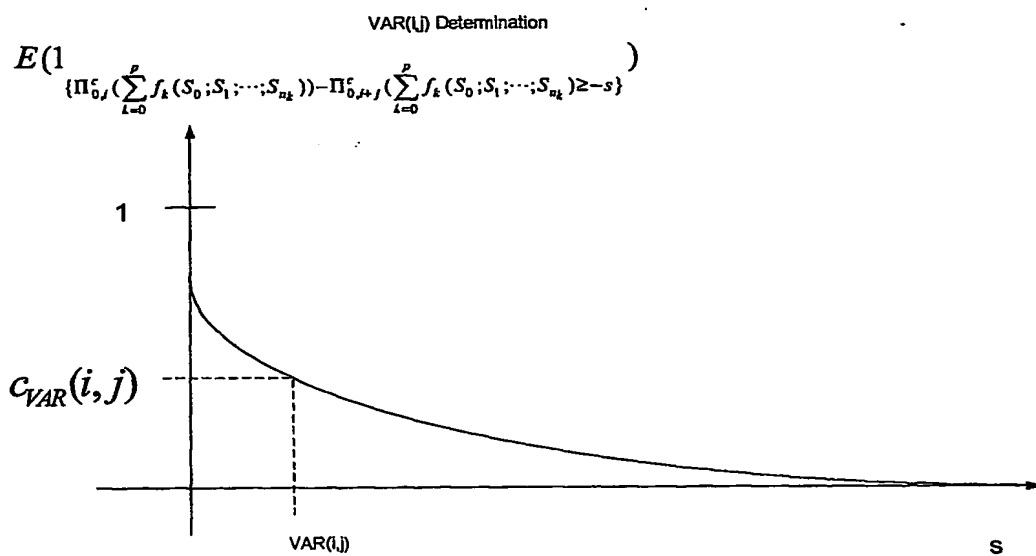


Figure 15: Risk Management, VAR Method

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VAR Risk Management Method

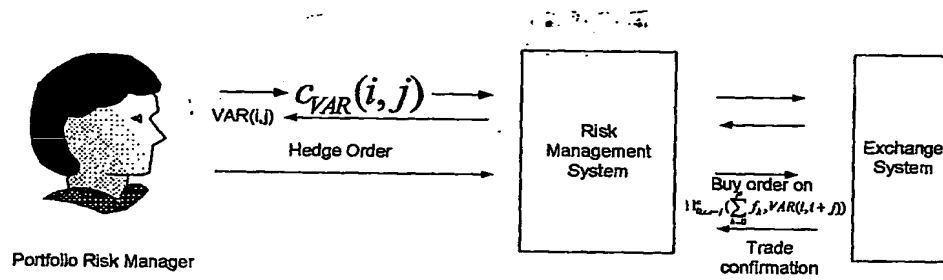


Figure 16: Risk Management, VAR Method

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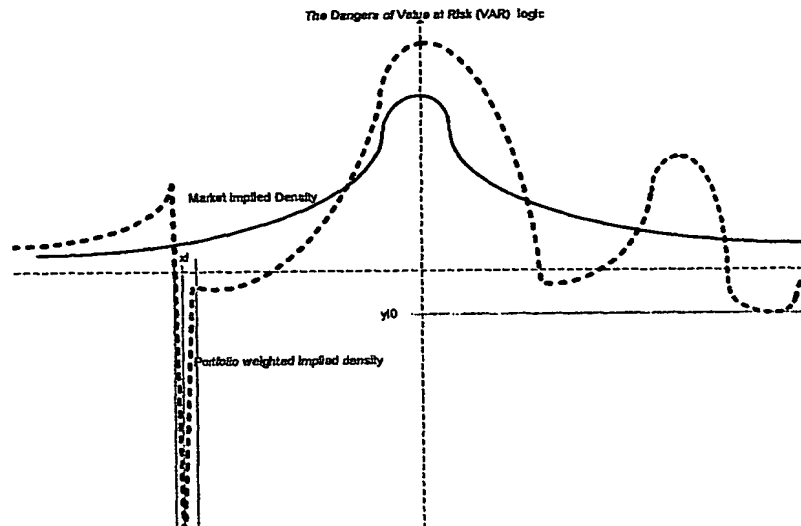


Figure 17: Risk Management, VAR danger.

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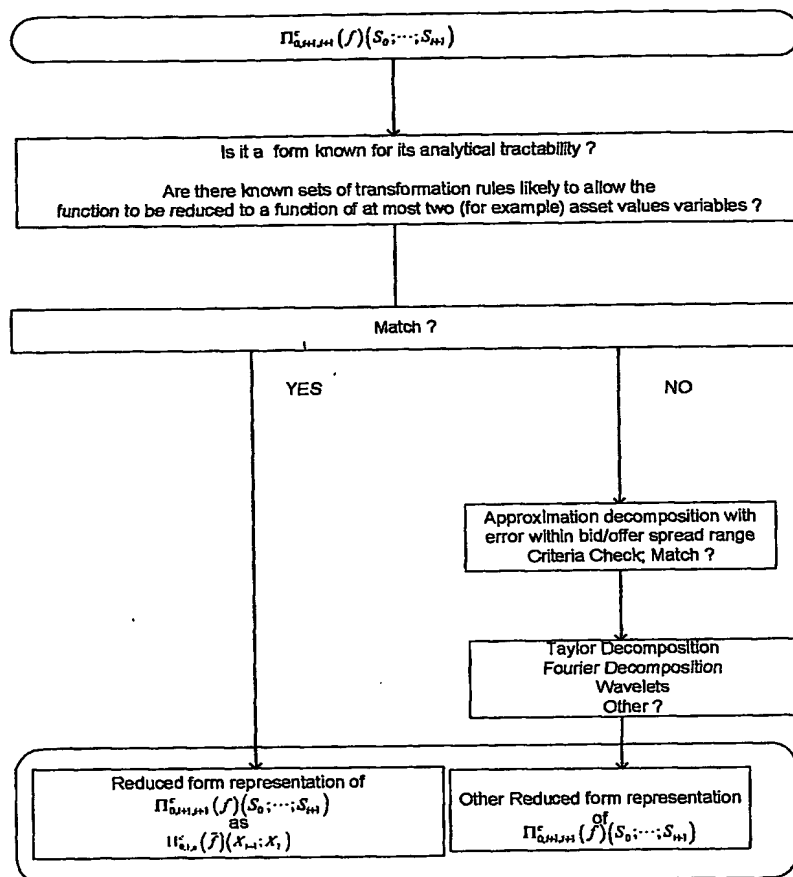


Figure 18: Compression to reduced form of Derivatives

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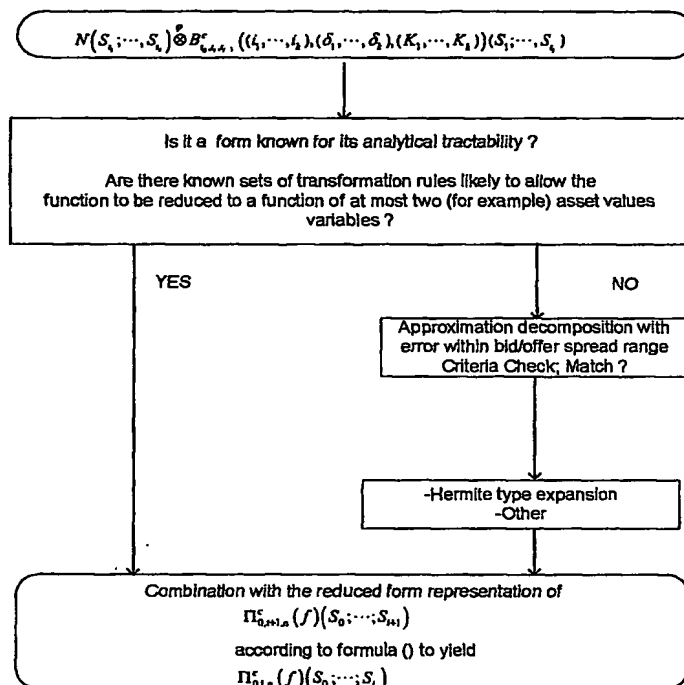


Figure 19: Compression to reduced form of Basis Instruments